

Remarks

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

Claim Rejections - 35 USC § 103

Claims 1 and 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wolgast in view of Erickson.

As previously pointed out, Wolgast is nonanalogous art and therefore cannot provide a proper basis for a rejection of applicants' claims.

In the Examiner's "Response to Arguments", the Examiner responded by correctly observing that it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. But this is where the Examiner stopped. The Examiner provided no explanation of how Wolgast was "reasonably pertinent to the particular problem with which the applicant was concerned" inasmuch as Wolgast is not in the field of applicant's endeavor.

The particular problem is providing a quick-acting valve having a short slider closing time (see page 1, lines 29 - 31 and page 2, lines 1 and 2 of applicants' specification). The Examiner did not show that this particular problem was discussed by Wolgast or even Erickson.

The Examiner went on in the "Response to Arguments" to state correctly that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. This, however, does not apply to the present case, because claim 1 does not recite the purpose of a process or an intended use of a structure. Rather, claim 1 recites a "quick-acting valve" which is the *sui generis* of the claim. Wolgast discloses a portable resistance spot welder. A spot welder is very far from a valve and much less a quick-acting valve.

Totally lacking is any reasonable basis for the Examiner to conclude that the skilled person would modify the spot welder of Wolgast in a manner that would give rise

to the valve of claim 1. In fact, turning the spot welder of Wolgast into a valve would render it entirely unsuitable for its intended use, i.e. spot welding.

Even if Wolgast was analogous art, the Examiner acknowledges that Wolgast does not explicitly disclose a plurality of electronic switches connected in series in the form of a cascade, with the electronic switches each bridging a series resistor. In this respect, the Examiner cites Erickson which shows in Figure 4 two electronic switches Q1, Q2, each bridging a resistor R1, R2. The electronic switches, however, are controlled by a series of pulses 12. The purpose is to provide a multiple gain solenoid, wherein the plurality of resistors are configured in series with multiple transistors "for selecting or deselecting resistors when desiring finite control of the driver circuit" (column 2, lines 4 - 7). In contrast, claim 1 recites electronic switches that are driven simultaneously into the closing state when an input voltage ... falls below a given switching voltage. Therefore, even a combination of Wolgast and Erickson could not lead to the subject matter of amended claim 1.

For at least these reasons, the rejections based on Wolgast and Erickson are improper and should be withdrawn.

Claims 2 and 3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wolgast in view of Erickson, and further in view of Yiannoulos. The addition of Yiannoulos does not overcome the fundamental deficiencies of Wolgast and Erikson as teaching references vis-a-vis the valve of claim 1.

Claims 1-3 and 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Arai in view of Erickson.

Arai discloses control circuits for electromagnetic coupling apparatus and thus relates to a technical field also far from the technical field of the present invention. The above comments regarding nonanalogous art are repeated here by reference. Arai does not address the problem addressed by applicants and no reasonable basis has been provided to support a conclusion that it would have been obvious to modify the electromagnetic coupling apparatus of Arai in a manner that would yield the valve of claim 1.

Further it is noted that the Examiner regards Q1 and Q2 of Arai as being electronic switches connected in series in the form of a cascade, with said electronic switches each bridging a series resistor (R1 and R2). It cannot be seen, however, how one can view Q1 as bridging R1 and Q2 as bridging R2. In contrast, Q1 forms with a

capacitor C1 a timer TIM (column 3, line 68 - column 4, line 1). Q2 does not cooperate with any one of the resistors R1, R2. Further, the electronic switches Q1 and Q2 do not form a cascade. Moreover, as above discussed, the deficiencies of Arai cannot be overcome by Erikson.

As a final comment, in the "Response to Arguments" section of the Office Action, the Examiner argued that features upon which applicant relies (i.e., electronic switches are driven simultaneously into the closing state) are not recited in the rejected claims. This, however, is not correct.

Claim 1 recites in the last three lines each electronic switch "being driven into the closing state when an input voltage (U_e) applied by said voltage source falls below a given switching voltage (U_s).". This clearly says that each electronic switch is driven from a defined condition, and hence the switches are driven simultaneously into the closing state. If the Examiner desires greater clarity in the claim, applicants would be amenable to amending claim 1 by adding "whereby the electronic switches are driven simultaneously into the closing state". If the Examiner is interested in this proposal, authorization is hereby given for the Examiner to enter such amendment by way of an Examiner's Amendment in order to expedite the allowance of the application.

Conclusion

In view of the foregoing, request is made for timely issuance of a notice of allowance.

Respectfully submitted,

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